NASA Project Management Challenge 2009

PROJECT MANAGEMENT CHALLENGE 2009

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ABSTRACT AND BIOGRAPHY

## Lean Project Management

Have you ever wondered why the traditional Critical Path Method (CPM) is so ineffective in our environment and if there were a way to successfully finish your projects without having to compromise either cost, schedule or content/quality because they got into trouble? This paper will explore the flawed assumptions that exist in traditional project management practices and the tools we currently use to manage our projects. It will discuss how our processes and tools lead teams and managers into making decisions that jeopardize their projects, and how a different approach based on the Theory of Constraints can greatly improve project performance. Projects by definition are discrete, with a defined beginning and end and involve completing many unique tasks during their execution. While project managers realize variation exists within task duration estimates, however, once entered into a schedule, they are treated as if they are deterministic. This situation negatively affects team planning and execution behaviors, thereby jeopardizing project success. The Critical Path Method, developed in the 1960's for scheduling and managing projects, assumes unlimited resource availability. Today, largely due to skill specialization, this situation does not exist in our environment, making this method/tool less effective for managing projects. Lean Project Management is based on Dr. Eli Goldratt's Theory of Constraints, which states that by focusing on the system's key constraint, dramatic improvements may be achieved in a very short period of time. For projects, the key constraint is task variation. By planning and executing our projects using Lean Project Management practices and tools, project managers can significantly minimize task variation, and dramatically improve project performance.

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Mr. Eggert is a Senior Project Manager with The Boeing Company, Space Exploration Division, currently assigned to the Space Shuttle Program's System Engineering & Integration team. In addition to overseeing System Integration's analytical projects, Mr. Eggert supports all Boeing programs at the site in their use of Lean Project Management practices.

Prior to joining the Space Shuttle Program, Mr. Eggert worked on the International Space Station Program as a Project/Systems Engineer on the Vehicle Integrated Performance (VIPeR) team. Mr. Eggert has also supported the Constellation Program, working on the System Integration Plan (SIP).

Mr. Eggert has a Masters in Engineering Management, specializing in Constraints Management and Critical Chain Project Management.